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REDRAWING DU PONT NYLON FILAMENT YARN

TENSIONING

Unsized nylon yarn tends to build very dense packages, and should be redrawn at as low tension as practicable, both to prevent crushing the take-up package and to stretch the yarn as little as possible.

Pinch tensions are not recommended for low twist, unsized nylon because they usually produce looped filaments.

Snubbing tension devices are to be avoided in redrawing unsized nylon. Any small variation in the surface frictional characteristics of the yarn, or in the initial tension on the yarn as delivered from the supply package (such as plucking) will be greatly magnified by snubbing tension devices. The seriousness of this effect increases with an increase in the angle of contact between thread and snubbing tension device. It should be remembered that anything around which the thread is bent works like a snubbing tension.

Sized nylon yarn does not require quite so much care in redrawing as unsized nylon. The size acts as a protective coating and also seems to reduce the tendency of nylon yarn to stretch under tension. This results in softer packages.

RELATIVE HUMIDITY

If the relative humidity is raised to minimize trouble from static, it should be borne in mind that the ease of stretching nylon under a given tension increases markedly with an increase in relative humidity, and the uniformity of tensions should be more carefully watched.

Both sized and unsized nylon yarns are usually handled more satisfactorily at reasonably high relative humidities than at low humidities, due to decreased static. Relative humidities in the range of 55% to 70% are preferred.

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